

# Cryptosporidiosis

*Disease Fact Sheet Series*

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## What is cryptosporidiosis?

Cryptosporidiosis is an illness caused by the protozoan *Cryptosporidium*, a single-celled parasite.

## Is cryptosporidiosis a new disease?

Although *Cryptosporidium* is not new, it was not recognized as a cause of human disease until 1976.

## What are the signs and symptoms of cryptosporidiosis?

By far, the most common symptom is diarrhea which is usually watery and profuse, and often accompanied by abdominal cramping. Nausea, vomiting, fever, headache and loss of appetite may also occur. Rarely, the parasite can cause an inflammation of the gall bladder or infect the lining of the respiratory tract causing pneumonia. Some persons infected with *Cryptosporidium* may not become ill.

## Who is susceptible to cryptosporidiosis and how long does the illness last?

All persons are presumed susceptible to infection with *Cryptosporidium*. In most healthy persons with normal immune systems, signs and symptoms generally persist for two weeks or less, although they may improve and then worsen during that time period. However, immune compromised persons may be unable to clear the parasite and may have much more severe and long lasting illness. (Some examples of immune compromised persons include people receiving cancer chemotherapy, kidney dialysis patients, persons on steroid therapy, people infected with HIV, and patients with Crohn's disease.)

## How is the disease contracted?

*Cryptosporidium* is shed in the feces of infected humans, domestic animals, and wild animals. Infection occurs when the organism is subsequently ingested by a person. It may only require a few microscopic *Cryptosporidium* organisms to infect a person. Thus, cryptosporidiosis can be acquired by person to person or animal to person transmission and by drinking contaminated water. Person to person transmission can occur via direct contact or potentially by food handling if the infected person does not adequately wash his/her hands after using the toilet. Infected individuals can shed the organism in stool for several weeks after they recover from the illness.

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Because cryptosporidiosis is transmitted by the fecal-oral route, persons with the greatest potential to transmit the organism include infected persons who have diarrhea, persons who are incontinent of stool, persons with poor personal hygiene, and diapered children.

### **Does past infection with *Cryptosporidium* make a person immune?**

The degree to which a previously infected person is immune to subsequent *Cryptosporidium* infection is unclear. There may be some resistance to reinfection, but it can likely be overwhelmed by a sufficiently large dose of the parasite, resulting in recurrence of illness.

### **How is cryptosporidiosis diagnosed?**

The infection is diagnosed by identifying the parasite during a microscopic examination of the stool.

### **How is cryptosporidiosis treated?**

There is no specific treatment for cryptosporidiosis. Fluid therapy is indicated if dehydration is a problem. Anti-diarrheal drugs reduce the motility of the intestines and may provide some temporary improvement.

### **How can I avoid getting and transmitting cryptosporidiosis?**

One can minimize the chances of acquiring and spreading the infection by thorough hand washing after using the toilet or changing diapers and before handling food. Because cattle are a common source of *Cryptosporidium*, avoid drinking raw milk and wash hands thoroughly after contact with cattle. Avoid drinking untreated and inadequately filtered surface water when camping or when traveling in developing countries. Comply with any water advisory issued by local and state authorities. Water can be rendered free of *Cryptosporidium* by boiling. Because of the small size of the organism (about 4 microns), many water filters commercially available for home use are ineffective. However, the use of very fine filters with an absolute pore size of 1 micron or smaller, may be of value in eliminating *Cryptosporidium* from water.

Because cryptosporidiosis can be a life-threatening disease in immune compromised persons, such individuals should be extra careful to avoid exposure to *Cryptosporidium*. Anyone with impaired immune function should consult their physician if they suspect that they have cryptosporidiosis or if they have had a potential exposure to the organism.